

**WHAT IS CLAIMED IS:**

1. A method of testing a patient for attention deficit hyperactivity disorder (ADHD), comprising the steps of:

testing for the presence of a marker having a locus within a block of linkage disequilibrium surrounding the DRD4 7R allele in the patient, and

evaluating the level of dopamine release in the patient in response to a stimulus.

2. The method of claim 1, wherein the level of dopamine is evaluated using imaging of the brain.

3. The method of claim 1, wherein the stimulus is exercise.

4. The method of claim 1, wherein the level of dopamine release is measured in a body fluid of the patient.

5. The method of claim 4, wherein the body fluid is selected from the list consisting of blood, urine and saliva.

6. The method of claim 1, wherein the marker corresponds to the DRD4 7R allele.

7. A kit useful for diagnosing ADHD, comprising:  
a polynucleotide corresponding to the DRD4 7R allele; and  
reagents for evaluating dopamine levels in a bodily fluid.

8. A kit useful for diagnosing ADHD, comprising:  
a polynucleotide corresponding to a marker the locus of which is within a block of linkage disequilibrium surrounding the DRD4 7R allele.; and  
reagents for evaluating dopamine levels in a bodily fluid.